

**Supplemental Table S5.** Baseline Running Distance, Anthropometry, Whole-Body Substrate Oxidation, and Metabolic Parameters at Follow-up between Higher versus Lower Baseline CRF Subgroup

Parameter	ND (n=8)		P value	HFD (n=8)		P value
	Lower baseline CRF (n=4)	Higher baseline CRF (n=4)		Lower baseline CRF (n=4)	Higher baseline CRF (n=4)	
Cardiorespiratory fitness level						
Running distance, m	252.63±7.58	317.20±15.18	0.0079	194.95±23.22	315.32±22.39	0.0049
Anthropometry						
Body weight, g	613.71±9.25	570.59±7.58	0.0159	865.93±19.26	734.91±40.15	0.0439
Visceral fat weight, g	30.68±0.99	22.35±1.18	0.0051	79.54±3.02	69.33±2.12	0.0233
Whole-body substrate oxidation during vigorous exercise						
FAO, mg/kg/min	18.21±1.97	15.57±1.15	NS	10.38±0.74	13.92±0.6	0.0146
CHOO, mg/kg/min	13.34±0.01	24.51±1.83	0.0170	5.10±0.28	9.42±0.29	0.0055
FAO/CHOO ratio	0.91±0.06	0.78±0.04	NS	1.39±0.01	2.41±0.11	0.0459
Metabolic parameters						
Glucose, mg/dL	199.59±3.18	163.21±2.19	0.0159	195.54±3.12	172.34±1.49	0.0399
Insulin, mU/mL	6.42±1.09	7.40±1.96	NS	13.82±1.87	9.37±0.97	0.0472
HOMA-IR	3.41±0.31	3.04±0.47	NS	6.25±0.16	3.34±0.49	0.0029
Triglyceride, mg/dL	134.10±17.67	66.38±17.22	0.0382	157.84±6.58	100.49±6.04	0.0188
Total cholesterol, mg/dL	92.87 ± 0.58	85.38±3.70	0.0454	123.61±1.27	111.37±3.53	0.0419
HDL, mg/dL	35.84±2.53	30.96±1.32	NS	27.42±3.65	21.03±0.48	NS
Calculated LDL, mg/dL	31.70±3.36	30.13±3.37	NS	68.55±4.64	67.22±6.06	NS
HDL/non-HDL ratio	0.64±0.05	0.59±0.02	NS	0.34±0.04	0.24±0.01	NS

Values are expressed as mean±standard error of the mean (n=8 per group). Week 12, baseline; Week 28, follow-up. All protein expressions are normalized to the expression of housekeeping proteins.

CRF, cardiorespiratory fitness; ND, normal diet-fed rats; HFD, high-fat diet-fed rats; FAO, fatty acid oxidation rate; CHOO, carbohydrate oxidation rate; NS, no significance; HOMA-IR, homeostatic model assessment for insulin resistance; HDL, high density lipoprotein; LDL, low density lipoprotein.